
CANADA MEDICAL ASSOCIATION,

MONTREAL, SEPTEMBER 1877.

ANNUAL ADDRESS,

BY

WM. H. HINGSTON, M.D., L.R.C.S.E., D.C.L., M.L.A., &c.

PRESIDENT.

(From the Transactions of the Canada Medical Association.)

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ANNUAL ADDRESS.

GENTLEMEN,—In taking possession of this chair, the first duty (as well as the highest pleasure) is to express to you my profound gratitude for the honour you have conferred upon me in calling me to occupy it. Permit me to assure you that I am fully sensible of that honour, and that I realize, at the same time, the important duties your partiality has imposed; and, believe me, if I fail to discharge them to your, or to my own satisfaction, it will not be for want of good will on my part. My predecessors in this chair,—chosen for their fitness, at different times, from various parts of the Dominion,—have consigned to me the continuation of a labour begun ten years ago in the ancient city of Quebec, for the advancement of that benevolent profession with which we are so closely united or related. Although much has already been accomplished, we must admit that *all* the advantages hoped for from its founders have not yet been realized. Sufficient has been effected, however, to satisfy them and us, that a greater degree of energy on the part of the members of this Association, pervading, adjusting, sustaining, and agitating the whole, would have been attended with a greater measure of success. But in a profession such as is ours, ever varying, ever undergoing mutation of some kind; endeavouring to eliminate what can no longer be productive of good; and to appropriate what it wishes to retain; and with difficulties arising from geographical and social conditions, the Association has, indeed, effected some good since its formation.

It has been the custom, for some time past, at the opening addresses before societies of this nature in Europe, and chiefly in Great Britain, to take up some department of the healing art, or some master or explorer who has passed away. Thus Paget advocates, at length, before the Surgical Society, the claims of Hunter as a physiologist; Sieveking vindicates anew the claims of Harvey to be considered the discoverer of the circulation of the blood. But at the annual meetings of this Association, where time is not afforded for abstract questions of historic interest, we are confined to those of practical moment—those politico-medical questions, chiefly, which concern us most.

OBJECTS.

It is sometimes insinuated that this Association has no objects sufficient for its existence; and that the good effected is altogether disproportionate to the labour, expense and time of coming together. But those are the insinuations of the ill-informed, who fail to perceive that, apart altogether from the scientific importance of such gatherings, the social advantages of union and converse, social sympathy and fellowship with each other, outweigh, immeasurably, the inconveniences. The Medical Association of our American cousins has had its history, but now it numbers so many members that it seriously contemplates making some change whereby that number may be reduced. Although almost too large and unwieldy for practical purposes, were it to pass away now, after only 30 years of existence, it must be admitted to have effected an amount of good that could not have been obtained in any other way. It has brought the medical profession of the United States into one body, and has encouraged State and smaller local societies, thereby improving the tone in these. So also with this Association, which can boast an existence of only one-third that period. Legislation has endeavoured to impose geographical boundaries; this Association defies all efforts at fixing limits or bounds, as of a territory. Legislation has imposed a term and limit to our functions, making the fit and capable practitioner of one province of our country disqualified for the duties of his calling in another; this Association rubs out and obliterates, for the time being at least, those unsightly enclosures which, although in a measure necessary, and created in self-defense, yet mar the beauty and unity of the whole.

DIVISION OF LABOUR.

It is a matter of gratification that the work this session will, for the first time, require to be divided into sections. Hitherto every thing has been done in general assembly, but the number of papers this session is so many that two sections, at least, require to be created; and I shall ask you at the proper time to suspend the By-Laws so that sections may be formed, one for medicine, and another for surgery. The other branches of the healing art must needs find place in one or other section.

The general sessions will be held in the morning, each day, at which the reports of the various committees will be read. The

papers on special subjects will be read and discussed at the afternoon sessions of the sections to which they may be referred.

As the work of the Association will be divided into sections, I am precluded the opportunity of dealing with what will be brought forward by the chairmen of sections at the proper time. I shall therefore touch upon questions of general interest, which cannot come under the prescribed heads; yet which concern the well-being of this Association; of the learned profession which it represents; and, more than all, of the community in which it is fostered.

MEDICAL LEGISLATION.

The acts relating to the profession of medicine and surgery, in existence for many years past, in this Province, have been changed. If amendment means improvement, correction, change for the better, then have I difficulty in unreservedly qualifying the hasty legislation in the ancient capital, last session, where three bills went in, to satisfy the fancies of three orders of mind, and one came out, satisfying fully, I believe, no order of mind.

The Province of Ontario has a central examining board, and the medical press and profession of that Province have pronounced in its favour. The Province of Quebec has, as yet, no central board, yet nothing short of it will satisfy the wishes of those who look only to the well-being of the profession, and of the community.

Medical education, as well as the preparation for it, belongs to each Province. It is useless, therefore, to speak of medical legislation for the whole Dominion; or of having a medical act to apply to, and to govern, the whole Dominion. But it should be an easy matter to introduce measures simultaneously, in the several Local Legislatures, each for its own Province, yet all alike, so that the practitioner in one part of the Dominion could be a practitioner in all; but central examining boards, one for each Province, and an uniform standard for the whole, must be elements in that system.

To compel persons, having a license to practise in one part of the Dominion, to obtain another to practise in another part of the same Dominion, seems to be an anomaly, but an anomaly which can be remedied only by a parity of medical legislation in the several Provinces.

How much more liberal is the present action in Great Britain, where the English College of Physicians has passed a by-law, by which even foreign practitioners may be legalized in England.

Any candidate for the College license "who shall have obtained a degree in medicine or surgery at a British, Colonial, or Foreign University, recognized by the College, after a course of study, and an examination satisfactory to the College, shall be exempt from re-examination on such subjects as shall in each case be considered as necessary."

In this way, foreign and colonial practitioners may join the English College of Physicians, and so "find entrance to the Register"—the Medical Council of Great Britain still retaining the duty of accepting the conditions for admission to the Register of foreign graduates. It appears to me to be the duty, as well as the interest of this Association, to endeavour to effect such changes as would lead to a like generous action.

In our recent act, some most serious defects occur which, it is to be hoped, may soon be remedied. As the law now stands, it is competent for one or two persons in the large cities, not over scrupulous as to means, so to gather up and manipulate proxies as to change the composition of the Board at an election. One active man in Quebec or Montreal may control matters at any time for the whole Province, and practitioners residing in the town, or in country districts, may, without their knowledge or consent, be made instruments for the purpose. In Ontario, it is different. There, each medical school has *one* in the Council of the College of Physicians and Surgeons, not *two* as here; and those outside the teaching bodies must not only be residents of the several territorial divisions for which they are elected, but "one shall be so elected from each of the territorial divisions by the registered practitioners of Medicine *resident in such division*." And the divisions are those "as established previous to the Confederation of the British American Provinces for election of members of the Legislative Council of the late Province of Canada." With us each member of the College of Physicians and Surgeons, the moment he enters the profession has 40 votes for election purposes! He may use one in favour of the representative of his district or division, and still have 39 votes remaining for those outside of it; and may either vote, or transfer them to the most clamorous. It may be readily understood how such a defect in a law might lead to unseemly cabals, if not to confusion and injustice. It is to be hoped the anomaly that exists in our election procedure in this Province,—an anomaly for which I can find no parallel elsewhere,—will be removed.

QUALIFICATIONS FOR PASSENGER SERVICE.

Through the medical press of this country, attention has been drawn to the refusal to recognize Canadian qualifications for emigrant and passenger service on board British ships; and the matter has been taken up by the Transatlantic Medical Press and the Medical Council of Great Britain. The Board of Trade has rescinded the order, and Canadian Surgeons continue to exercise the privileges they have enjoyed, since emigrants first came to our shores. But the law still exists, and it is competent for the British authorities to return, at any time, to their former action. The qualifications of holders of Canadian diplomas have not yet been recognized, but their continued employment is acquiesced in. Many have asked that the subject be settled definitely. How can we ask for it till we obtain for the holders of Canadian diplomas recognition all over our own Dominion? Can we ask Great Britain to concede to us what we do not concede to each other? I say this, not to interfere with the courteous and most generous action on the part of the British authorities, but to stimulate you to renewed efforts to make such satisfactory arrangements as will enable holders of diplomas from one part of the Dominion to practice in all. The profession of medicine is a liberal one; not mean, narrow, or selfish. Being liberal, although somewhat foreign to the subject, I cannot but allude to the uncourteousness of a member of the profession in Ontario towards a surgeon of distinction in Detroit who visited Ontario to perform an operation at the request of a highly respectable physician of the place. I am sure you will willingly make me the interpreter of your views in assuring Dr. Jenks, and, through him, the members of the profession in the adjoining Union, of our honest offered courtesy, and of our continued desire for reciprocity in matters which even governments cannot, and should not, attempt to control. Science requires, and humanity demands, in matters of this kind, the most unfettered complaisance and civility.

EDUCATION.

I am naturally drawn from a consideration of the question: What should constitute the qualifications of a medical student before entering upon the *practice* of his profession, to what should be his qualifications on entering our medical schools? Should he have secured knowledge which promised nothing beyond know-

ledge itself; or, should he, as would have done a Cato, have acquired knowledge with reference only to what it could produce? Should he possess a liberal education; or that sort of knowledge which we now term useful? Should he possess refinement and enlargement of mind; or only sufficient knowledge of Latin to translate Gregory or the Pharmacopœia? Should he possess liberal knowledge, or, as it has been happily termed, a gentleman's knowledge—which, to possess it, is something, though it produce nothing;—or that utilitarian knowledge which is of use only when acted upon? Should it be the education which is philosophical, which rises to, and is enriched with, ideas; or servile and mechanical, and which expends itself upon what is external and visible? Should it be the education which gives a high tone of thought, a high standard of judgment; or that education which merely makes of the memory a passive receptacle of scraps and fragments of knowledge, to be served out confusedly and without method. The education I vindicate should give cultivation to the intellect; it should give a delicate taste, a candid, equitable, dispassionate mind, a noble and courteous bearing in the conduct of life. It should open the mind, correct it and refine it, and enable it to “know and to digest, master, rule, and use its knowledge, and give it power over its own faculties, application, flexibility, method, critical exactness, sagacity, resource, address.” With the intellect, thus tutored and instructed, the student might enter upon the study of that most difficult profession of which we are members; engage in a calling the due discharge of which requires all the attributes of the mind, and the highest culture of the intellect; and pursue with advantage a particular course of study which might issue in some definite, and, perhaps, remunerative work. It may be gathered from this that I share not with those arch levellers who advocate a low Utilitarianism; but rather with those who think the student should be formed “not by a parsimonious admeasurement of studies to some definite future object; but by taking a wide and liberal compass, and thinking a great deal on many subjects, with no better end in view, perhaps, than because the exercise is one which makes him a more rational and intelligent being.” But this is not what has been obtained for us recently in a hurriedly prepared law relating to our profession in an important province of this Dominion, where our colleges and seminaries of learning have been degraded from their position. The graduate in arts, the student who has completed his eight or nine years curriculum at any of our colleges, should, by that fact

alone, be qualified to enter upon the study of medicine. But no! our universities may grant degrees in arts, but the colleges and affiliate medical schools over-ride them!! and subject the candidate to a new ordeal, from which he should be exempt!!

Yet the possessor of a *liberal* education, compared with one *crammed* for an examination—the nature and extent of which he may have learned from those who had gone in before him—is, to use a familiar comparison, as one standing on the timber to be divided, seeing the line to be followed, and guiding the instrument intelligently, compared with the one beneath, who mechanically aids the work, but, blinded by the dust and particles he has detached above his head, is uninformed as to the progress or nature of the work being done. And so it is with labour of an intellectual kind. We must be above our knowledge, not under it. If above it, we may generalize, reduce to method, “have a grasp of principles and shape our acquisitions by them.” If below our knowledge, we are confused and oppressed; and the greater the number of facts the more those facts confuse and oppress.* This is markedly the case in medicine. An ill-informed physician is easily startled at every change in the condition of a patient; and rushes in to check, control and interfere, when, with a better trained mind, he would be led to observe, and to note, that, if need be, he might, with greater advantage, guide and direct. The uneducated man, unaccustomed to group and to combine, gives prominence to what may be unimportant; and fails to recognize what is of value. It is with medicine as with politics. We have two classes of politicians in this country; the one, versed in the science and art of government, and in the ethics which concern human actions, and capable of an abstract view of the contentions of parties; the other, a mere transcript or copy of the last editorial in the journal of his party,—unequal to methodically arranging or digesting facts, or to comprehending the laws and principles which govern party and party issues. To which class of mind—

* In an able editorial in the *Philadelphia Medical Times* for May, 1877, it is asserted that the standard of graduation in the United States, south of New England, has been steadily lowered, and although “new matter has been added to the curricula,” and “the bait of clinical instruction has been alluringly spread, the effect has been evil, because the attempt has been simply to pour into vessels already overfull.” Would it not have been nearer the truth to say the vessels had not been prepared of a capacity to contain what they received, but could not retain?

apart altogether from party—would you most willingly entrust the guidance of the concerns of state? I anticipate your answer. To which, in like manner, should be entrusted, not party issues, nor the interests of a party, but what is of far greater moment,—the health and life of the people,—but to intellects formed and disciplined for the perception of those phenomena, the causes of which, even to the best trained minds, are far from obvious or indubitable?

I have ventured to say this much, even at the risk of fatiguing you, in favour of a liberal education, for the time is come when physicians can no longer hope to retain their position in society without that perfection of the intellect which is the result of education; which, as Newman says, "is the clear, calm, accurate vision and comprehension of all things, as far as the finite mind can embrace them, each in its place, and with its own characteristics upon it." In the days of Samuel Johnson the physician was admitted to be the most cultivated and learned in any society. In how many countries in the world could that be said with truth to-day? Could it in Canada? There are some countries where the physician is still among the best educated gentlemen, and his social status is regulated accordingly. Notably is this the case in Ireland. Dr. Stokes, with whom I conversed on this subject in 1867, and to whom I remarked the high tone; the gentlemanly bearing; the friendly relation one to another; the easy, well-bred familiarity which characterized the members of the profession in Dublin, said: "It is easily explained; nearly all our graduates in medicine are graduates in Arts. Of the last 98 all had degrees in Arts." There are some other countries where the same condition obtains.

If the cultivation of the intellect was necessary when men were content to observe, and to base practice on observation, how much more necessary is it now, when the most acute logical minds are sorely puzzled between what are claimed to be scientific truths, and what are bold reckless assumptions.

SCIENTIFIC ASSUMPTION.

This is unquestionably the age of bold, reckless, I had almost said impudent, assumption in matters of science. While it is generally conceded that our "ideas of the intrinsic elements that constitute beings in the physical as well as in the moral order are very limited and imperfect," we now boldly assume the mutual

dependence of things upon each other when we could logically establish nothing more than co-existence or succession; as if co-existence or succession necessarily implies connection or relation.* Look at the writings of a Spencer and a Huxley for illustrations of what I state. They, with Tyndall, have occupied a larger share of our thoughts than have many hundred more scientific writers who preceded and accompanied them. Yet what but bold assumption and word painting have we gleaned from the first of these; and a plausible but illogical mode of drawing conclusions.

SYNTHESIS IN MEDICINE.

While medical writers during the past and early part of the present centuries analysed, divided and separated diseases, and gave prominence to qualities and features by which one disease differs from, and is distinguished from another, (thereby clogging and oppressing the memory with varieties of dissimilitude,) there is a tendency now to synthetize, arrange and group in a more general way, diseases which may present some features of variance, but many of similarity and resemblance. Markedly is this the case in Cutaneous Medicine. Just one century ago, Shenck, of Vienna, completed his arrangement of cutaneous disorders. Willan wrote some twenty years later; and Hebra, also of Vienna, a half century still later. Compare the earlier with the later Vienna school, and we shall see that diseases are now classified on a sounder pathological and anatomical basis; that the skin is identified with "the rest of the organism;" and that the study of its diseases is clothed with a more scientific and philosophical

* We have had those assumptions on a large scale in Tyndall's assertion, recently, that the blue of the sky, as seen from the highest elevations, and above possibility of contamination with earth, is caused by vast numbers of foreign bodies floating in the atmosphere, so small as to be undistinguishable by a microscope magnifying 1500 diameters. Dollinger produced a magnifying power ten times that asked for, and assumed to be sufficient, but the minute germs still declined to exhibit themselves even to this powerful observer.

We have had the same thing on a small scale in our midst. We had in Canada predictions about the weather *many months in advance*, which were received by the thinking public with a smile of incredulity; but by the curious with avidity.—*dulce est errorari*. Had these been confined to foretelling the occurrence of the seasons, promising us much cold in winter, much heat in summer, many showers in spring time, and frost and falling leaves in autumn, we should have applauded so wise a reticence. But more definite prognostications were required by the public, and were given; still the heat came and went—and the "*froid vidait son sac*," with a wantonness and nonchalance regardless of the feelings and interest of Mr. Vennor.

character. And what are the advantages resulting therefrom? Cutaneous affections are regarded less as local affections, than as local manifestations of a general disturbance. Our own Erasmus Wilson simplifies cutaneous disorders still more by placing them in four groups—an *assimilative* group; a *nutritive* group; a *neurotic* group; and a *specific*, of which syphilis is the only example. "Nearly every new disease of the skin," says he, "might be comprised, therapeutically, under these four heads." What a stride is here made in a most interesting branch of medicine! and yet only in conformity with the experience of every thoughtful and observant practitioner. The tyro in medicine has, or thinks he has, a half dozen remedies for every disease; but as experience is gained, he learns, and with advantage to his patients, to make a fewer number of remedies to suit a much greater number of disorders. And thus it is in surgery; and thus it will be in Gynæcology, when the process of resolving the more hidden operations of nature shall have had its limits somewhat defined.

I have always thought, and the belief has strengthened with observation, that the work of grouping diseases for therapeutic purposes is yet to be done. Sir Henry Holland, many years ago, partially guided the current of medical thought in that direction. But the tendency to analysis, which the study of minute anatomy, and the use of the microscope, so greatly favoured, diverted that current, till the observations of a Neumann, of an Auspitz, or of an Erasmus Wilson, showed, in one department of medicine, at least, what might, with great advantage, be accomplished in all. Perhaps some member of this Association may yet achieve in other departments of the healing art what has been so well effected in this.

STATE MEDICINE.

Without taking from the important useful advances in medicine; the splendid triumphs of the surgeon; the wonderful precision of diagnosis of the modern gynæcologist;—there is a department as important as any of these; yet one so recent, that it is only within the past few years it has found a distinct place in any of the medical schools of the Dominion. I allude to State Medicine. Its object is, as tersely stated by J. Marion Sims, "to do everything necessary to protect the health of communities and states. It investigates the air we breathe, the water we drink, the food we eat, the clothes we wear, the fuel we burn, the houses we live

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Gentlemen,—Is there, can there be, a more important work than "to protect the public health, which is the life of the nation?" And to whom does this work of right belong but to those who, already familiar with Physiological and Pathological Sciences can best teach and instruct their application "to the maintenance of the health and life of communities, by the means of agencies which are in common and constant use."

Speaking, as I do to-day, to, and in behalf of the Medical Profession, in this our beautiful and beloved Canada, I should say there is no work more important; no work more philanthropic; no work more benevolent than that of awakening in our population, and through it in Governments and Municipal bodies, a knowledge of, and an interest in, all matters relating to public health. A knowledge of the laws of health should not be confined to the profession. They were openly taught to the people by a Moses, and were not strained through time, but came down to our own day monuments of wisdom.

What is the duty and office of the physician? To deal with abnormal functions, and to change, if possible, or to remove unhealthy structures in the human body; to restore to that thinking faculty in man its pristine powers, that it may receive impressions, understand them, and be affected by, or be mindful of them; to restore health to the sick and wounded in spirit? Such, in a word, is the office of one who professes, or practises, the healing art; or who adopts manual operations for the cure of diseases that are external. But something more is required.

Is it not true that the profession as a body, deals chiefly, if not solely, with that entity when its being or existence is threatened; or when the harmony of its complex movements is disturbed? What a huge share of attention is directed to, and how closely we watch the progress in, that science which seems to deal chiefly with the symptoms of diseases, that we may recognize them truly; and with the effects of diseases, that we may limit or modify, if not

hinder those effects. The medical press comes to us from every part of the civilized globe, and almost daily from around us, teeming with new methods of curing disease. New remedies, or new ways of employing old remedies, follow each other, phantasmagoria like, in such rapid succession, as to baffle the efforts of the most diligent experimentalist to examine and to select for future use, without seeming arbitrariness. And yet how often are the best efforts of the physician, even with his ever new and powerful armamentaria, powerless to check the spread of diseases, through the carelessness or ignorance of those who surround the sick bed! If, for instance, diseases consist, as claimed by Tyndall, of definite particles, sometimes floating in gas, or in the air, or in the liquid we drink; and that like organic seeds in the soil the particles multiply themselves indefinitely in suitable media—the great probability being that their disease producing qualities are living things—not gaseous or liquid,—but solid, the treatment of disease will resolve itself, sooner or later into a kind of germicide within and without the body—within, in the fluids and secretions of the body—without, in the noxious elements that surround it.

The conviction is steadily gaining ground that a Board of Health should be established for the Dominion; Provincial boards for each Province; and local boards for every municipality. But where shall we commence? With the Legislature? No! Legislators are but the mouthpieces of the people; and if party politics consume their time, they but act up to the standard by which the measure and quality of their work are to be valued. Give them, however, another, and a higher standard by which to estimate and measure the line of duty, and make them to understand that the health and happiness of a people, as Earl Beaconsfield observes, are the foundation on which depend much of the happiness and power in the State, and we will find them exercising all the ingenuity of the age, and all the knowledge of our most advanced Scientists and Sanitarians in securing the lives, and in protecting the health of the people. But can we reproach them for doing nothing, while we do so little towards disseminating correct information, and inculcating proper habits among ourselves? Let us do our share outside of what is the truly professional—for none so qualified as we to do—and salutary laws will be framed, and the people will observe them. It is said that our favoured Sister City, the Queen of the West, and the Capital of Ontario, has made

"several very vigorous and very unavailing attempts to form a Sanitary Association, with a view of aiding the authorities in improving the health of the city." This city has been more fortunate, and has done more—but it required to do more.

LEGISLATION ON HEALTH MATTERS

has been, so far, unformed, unfinished, and immature. When I entered officially, a couple of years ago, upon the labour of endeavouring to improve the sanitary condition of the city in which we are now met, I found no law that could be put into force to carry out the most necessary sanitary measures; and, in my earlier enthusiasm, struggled, with but partial success, to obtain some amelioration in sanitary legislation. More matured experience, however, apprised me that legislation is useless where the people are totally unformed on the most elementary health matters. Where, for instance, the wisdom of endeavouring to enforce sewer ventilation, where the chief magistrate seriously proposed "trapping the sewers?" Where the advantage of endeavouring to accomplish what the whole scientific world approves of—general vaccination,—and, in times of epidemic, re-vaccination, when professors in medical schools will, in public squares and market places, harangue the uninformed against the practice? No. While our laws, as I have already said, are unformed, unfinished and immature, we, gentlemen, you, and I, and every one of us, have to do more than we have hitherto done to get those, whom sanitary laws affect, to have some sort of intelligent appreciation of the principles they involve. Every man can see, says Miss Lankerton, that if he persists in walking over a precipice he will, in all probability, be killed, and there is no need to enforce a law to prevent his doing so; but he does not see as clearly that if he and his family live and sleep in an atmosphere filled with sewer gas; or if they drink the unfiltered water of some dirty pool or river, destruction is as certain and inevitable, though by a slower process. Is it not clearly, then, the duty of those, whose eyes are open to the latter dangers, to make them evident, if possible, to those whose ignorance is as a "mist before their vision?" And, gentlemen, upon whom does that duty devolve, if not upon those who are qualified to instruct, where instruction is so much needed? I shall not go to other countries, or to other cities outside of our Dominion to ask a question. There are in Canada nearly 6000 physicians. Were that body of educated men to do its duty, each member of

it in the space or circuit through which he walks, would the profound ignorance we meet with in sanitary matters be so general? I think not; and if accountability rests upon any one, upon us must fall a portion of that huge responsibility which doubtless rests somewhere for that large death rate which obtains in some of our larger cities. The physician who is content to prescribe only to those who are sick, but imperfectly discharges his duty to the state. There is a duty he owes to human society as such; to the state to which he belongs; to the sphere in which he moves (and the physician moves in every sphere); to the individuals towards whom he is variously related; and that duty is but ill-performed where ignorance the most crass, and prejudices the most benighted, are permitted to pervade a community.

INSANITY.

Papers will be read before you to-morrow, on this most important subject, showing, I have no doubt, to what a labyrinth of difficulties the physician is sometimes introduced, when dealing, or attempting to deal, with those questions of insanity, or supposed insanity, upon the elucidation of which, the hope and prospects of whole families sometimes depend. Whether, as held by certain Neurologists, hallucinations are accompanied, if not caused by, derangements of the optic thalamus or parts adjoining; or, according to others, that the seat of trouble is in the corpora quadrigemina; or, according to a third, that there is pigmentation of the retina and pigmentation of the spleen or of the cortical nerve cells, or in certain cases pigmentation of the whole brain; or whether, according to a fourth, better informed methinks, these appearances are mere coincidences, met with in sane and insane alike, thus severing the connexion endeavoured to be set up between insanity and pigmentation any where; or, whether anomalies in the vascular supply alone awaken old impressions, which are often erroneous, because misplaced as to time and circumstance; or whether, as beautifully put by Spitzka, complex registrations imply a higher consciousness, and can only have their seat in the higher centres, namely in the cortex cerebri, and that it is through the fasciculus of the corona radiata that registrations of thoughts or impressions, sane or insane, are "projected on the cortical convoluted screen," a screen, as Spitzka calls it, because it acts like one in receiving impressions, and differs from it only in that its impressions are never blotted out, except by

destructive lesions or by death." While these questions concerning the site and causes of insanity are undergoing inquiry, and no where with more diligence than in some parts of America, let us hope with solution, the questions, why should the brain alienate its functions; in what manner is lunacy brought about; whence and from what source is reason dethroned; and where is the seat of the usurper, although pregnant with scientific interest, have a more practical aspect, and one which concerns the public not less, and justice and humanity more.

The responsibility or irresponsibility of accused persons is a not uncommon question to be decided in our Courts of Justice, where the plea of unsoundness of mind is often put forward to influence and guide, or to hinder and traverse, the due course of law. There are many phases of insanity indistinguishable to the unprofessional observer; and as, on the one hand, the legal definition of insanity was settled, established, and freed, as was supposed, from ambiguity, by Legists who have long since passed away; on the other, every year adds a something to our etiology and pathology of that state, which under the term *insanity*, includes so many varieties of unsoundness of mind. The breach between Medicine and Law on this question has always existed, and must necessarily grow wider and wider, until another Erskine shall have arisen, who, availing himself of the researches of recent neurologists, will adopt a definition more nearly correct than any of those which I take at random from standard works: "Un délire chronique, sans fièvre, avec excitation des forces vitales;" or as otherwise characterized: "Un délire général avec excitation, élasticité, penchant à la fureur." "Un délire général, ou du moins sans idée dominante, sans passions fortement prononcées et permanente, mais avec disposition à la fureur."

Such, gentlemen, or something much after this fashion, is the definition, in the gross, of a malady which jurists wish us to accept in courts of law, and upon it to decide whether a human being shall be hung or set free; deprived of the use and control of his property; or whether third parties shall receive or be deprived of what would otherwise be theirs.

It is very difficult indeed, says Lord Hale, to define the *invisible* line that divides perfect and partial insanity, but it must be duly weighed and considered both by the Judge and the Jury, lest, on the one side, there be a kind of inhumanity towards the defects of human nature, or on the other side too great an indulgence given

to great crimes. That line of distinction, referred to by Lord Hale, says Stephens on Crimes, has never yet been fully traced; yet medical men are often tempted to be bullied and browbeaten into drawing a defining line, (which to jurists, even, is yet "invisible,") of a discretion or discernment between good and evil.

I have already said that Law and Medicine are conflicting on this question; but to a Pinel, an Esquirol, a Riemschneider or a Barlow it belongs, and not to a Hale or an Erskine, to say who is, and who is not, insane. As sick men define their sensations most correctly, why not the insane, with Shakespeare, say what is insanity?

How pregnant sometimes his replies are! A happiness that often madness hits on, which reason and sanity could not so prosperously be delivered of.

They could do it as well as Jurists, whose training in Law does not qualify them more for questions of this nature.

The difficulties I have here merely glanced at were never more clearly or more forcibly set forth than by a distinguished member of this Society at its last annual meeting in Toronto. Dr. Workman, with a perfect causticity which he knows how to use, sketched some of those disputations between Law and Medicine, and the latter did not suffer in his hands. I should not allude to this question now, when so much remains to be said, were it not to point out the inconvenience, if not injustice, that is sometimes done by experts in courts of justice being outnumbered by medical practitioners who have given but little attention to the subject of insanity, and to whom the obscurer forms are quite unknown. If the most diligent and painstaking physician finds a lifetime too short to familiarize himself with the office, functions and derangements of all the internal organs of the economy, and gladly sees medicine having its explorers in certain parts of certain structures; how necessary is it, in cases where reason is not totally dethroned, that the duty of advancing an opinion which is to sway a jury, and bear consequences the most important, should be confided to those who are accustomed to detect those early and less marked varieties, which might escape the notice of less experienced observers. I am forced into those reflections by a consciousness that justice has sometimes miscarried in Canada by the manner in which numbers have outweighed qualification. In French, and other continental courts, for many years past,

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questions of insanity have been referred to experts named by government, who form a neutral council, and neither one side nor the other can furnish *ex parte* evidence of a technical character in rebuttal. At the meeting in February last of the Medico-Legal Society, a step in the direction indicated was made by James Appleton Morgan, who moved, "That the Society appoint a committee to inquire into and ascertain concerning the system of medical and surgical experts appointed by law and attached to courts of justice, understood to be provided by the laws of France."

In this Dominion we do not look, nor do we hope at once, for that complete system which obtains in Europe; but we may, by a tacit acquiescence, favour a plan or arrangement which would be productive of much good. I should say much more on this subject, but as two papers will be read before you on matters germane to this question, I shall leave to Dr. Workman and Dr. Hornibrook the completion of the task they have assumed.

UNION WITH THE AMERICAN MEDICAL ASSOCIATION.

You may recollect that at the Niagara meeting of this Association, in 1875, it was decided that, "in consideration of the true interests of Medical Science, it is desirable that a medical conference should take place between the American and Canada Medical Associations at some central point to be determined upon; and that the American Association be advised as to the desirability of thus becoming more intimately acquainted, and affording an opportunity for the discussion of medical and surgical questions on a common basis."

At the Louisville meeting of the American Medical Association, later in the same year, the subject was taken up, and it was resolved "that a committee of thirteen be appointed, whose duty it shall be to confer with a like committee of the Canada Medical Association at such time and place as may be agreed upon by the joint committee of the Associations." That joint committee met in Philadelphia in September, 1876, when it was unanimously resolved "that a union of the two Associations into one is desirable, and that the president of each be requested to bring the subject before his own Association, and present his own views upon the matter, in order that the question may be fully discussed, and action taken thereon by the members at their next annual meeting." The "next annual meeting" of the American Medical Association was held in Chicago, in June of this year, and the

distinguished President, Dr. Bowditch, of Boston, fulfilled, in an admirable manner, the duty imposed upon him, by summarizing, in his address, the arguments for and against the proposed union.

Among the latter, speaking for the objectors, were: the difficulty already experienced of making so unwieldy a body as the American Medical Association, a working body, would be increased; the two languages used throughout this country; the difficulty of arranging the expenses of the united body; the widely distant places of meeting, &c., seemed against the proposed union.

The arguments in favour of the union were thus stated by Dr. Bowditch, and I give them in his own words as the best evidence of the kind feelings of the Association, and of the courtliness and urbanity of its President towards Canada and its young Association:

"*First.*—We should associate ourselves with a body of physicians all of whom have been educated under English influences, and many of whom have pursued their studies in England, and have received diplomas from the schools of that country. We all know the high standard of qualifications required by the British schools.

"*Second.*—Why may we not look upon such a connection as quite similar to that which has frequently taken place, and which will occur again hereafter, when a new state in this Union is formed?

"In that case, if a State Medical Society be organized, it has to send delegates to this Association. The only difference in the two cases, would be that Canada embraces a very much larger constituency than any of our new States would have.

"*Third.*—I am inclined to look with favour upon the proposed union from the standpoint of civilization itself. There can be no doubt, as already stated, that this American Association has been a great means for promoting good-will between the different sections of the United States. The proposed union with Canada will tend much towards the reuniting of two of the freest nations on the globe, and certainly civilization can get only good from such co-operation. All means that we can bring to unite mankind I hail with delight.

"*Four.*—I will allude to what will give me, and I doubt not many more, great pleasure. I wish the united professions to meet in the old cities of Montreal and Quebec, and pass up and down the noble St. Lawrence, magnificent as it is in the length, depth and breadth of its waters, and still more fascinating from its early associations with European civilization. I would like that we should all stand on the scarred battlements of Quebec, and I think perhaps we, of this country, might learn a divine lesson of magnanimity after war, if we could together look at the obelisk erected by the graceful action of the British government to

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Dr. Bowditch, in conclusion, suggested that the whole subject be referred to the judicial council of the Association then in session. It was so referred; and the council soon after reported *adversely* to the proposed amalgamation.

That decision, gentlemen, relieves me from the duty imposed upon me of presenting my own views upon the matter at this, the first "next annual meeting" of the Canada Medical Association. Yet I may be permitted to observe, in view of the vast but sparsely populated territory, and of the very diversified elements that compose our less widely extended but more furnished neighbour, union for scientific purposes was alone possible; for all matters pertaining to medical ethics or education could not possibly have been discussed and settled by two peoples so near each other in many things, so far asunder in others. But I rejoice that the discussion of the subject has furnished occasion for the most friendly intercourse, where geographical boundaries were overleaped, and where forms of government did not obtrude but to give higher zest and relish to our intercourse. I beg, now, on your behalf, to reciprocate the sentiments of the President of the American Association, that each should send, annually, delegates to the other Association. Each will surpass the other in being neighbourly; and the delegates admitted to the other Association will be the representatives, from across the border, of mutual good will.

That has already been done this year, and I welcome most heartily our distinguished friends from the United States, and greet them in your name.

And now a word of explanation which might have come earlier. The Canada Medical Association did not ask for amalgamation; or to absorb, or be absorbed by, the American Medical Association; but merely for "a conference at some central point" so as to become "more intimately acquainted," and to discuss "Medical and Surgical questions on a common basis."

If our representatives at Philadelphia asked for more, they were not so commissioned; and in resolving that "a union of the two Associations into one, is desirable," they expressed their own views,—advanced and liberal, no doubt,—but spoke not for the Canada Medical Association, which, at Niagara in 1875, asked

merely for a "medical conference," for the "discussion of medical and surgical questions on a common basis" without either Association losing, or wishing to lose, its identity.

But union of the two Associations is of the near future, and in a way little dreamed of, perhaps, by the superficial observer. History tells us that absorption usually goes on from the north. The statistics recently furnished show a birth-rate for some parts of Canada which has never been equalled. In the city of Montreal, last year, the birth-rate was 49 per 1000, and the French Canadian element alone gave 64 per 1000, the largest birth-rate that has ever been reached. Union, amalgamation, absorption, are of the near and certain future, therefore, if our large birth-rate, and the alarmingly small birth-rate in some of the States of the adjoining Union, continue as at present.

FÆTICIDE.

Here, gentlemen, my somewhat lengthy address should end, but yielding to the solicitations of some of my medical friends, and impelled at the same time by a sense of duty, I venture to touch upon a matter of extreme delicacy, but of vital moment. It is asserted by an American writer, (Dr. Allen,) that in *certain* classes of society in some parts of the adjoining Union, for a long time past the marriage relation would seem to be regarded, not as a Divine institution ordained by God for the preservation of the species, but as a matter of convenience and self-interest. To use his own words: "the standard of living is too high; the artificial wants are too many; confinement to household duties is irksome; children are a burden; the responsibilities of maternity must be avoided or limited. Hence in married life a series of 'nameless acts' take place, which need not be described." In those few grave, weighty, momentous sentences, gentlemen, are contained a picture of some of the chief causes of that alarming decline of birth-rate, and with it, and as a consequence of it, a gradual and pernicious change in the female physical organization. This, in thoughtful minds, has created alarm lest the *induced* organization become permanent in type. I know not how to enter upon the subject without running some risk of offending reserved and modest sensibilities. The crime I have faintly alluded to is but the logical outcome of those theories of genesis and of population which have been so enticingly placed before us by some very eminent scientists in latter years. There was a time when the birth-

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rate, in the United States, was as large as in Europe, or in any part of the world. In round figures the States doubled their number, from births alone, every twenty-five years. How is it now? Vital statistics are as yet too incomplete to base any accurate calculation for all the States of the Union, but those of Massachusetts and Rhode Island are most trustworthy, and afford information that is appalling.

The registration reports for Rhode Island, which I have just received from Dr. Snow, than whom no one is more competent, show an immense falling off in the birth-rate in that state, and leave but little room for conjecture as to the cause. Those of Massachusetts are equally significant; and were they not furnished as State Documents with all the weight of authority, I should not dare to allude to them.*

I fully admit the statement of Dr. Edward Jarvis that: "Massachusetts is one of the most favoured states in the world for the intelligence, at least of its native population, and for their thrift and wisdom in management." In the fifteen years preceding 1870 of the children born in the state only 13.91 per cent. died in their first year—the smallest infantile mortality, excepting Norway, in the whole world. And when it is added that this mortality "includes the record of the foreigners, whose infant mortality was in a larger ratio, as well as that of the native families whose infant mortality was at a lower rate than this average," it may be seen how devoted, how intelligent is the care of the New England mother of her infant.

* The population of Rhode Island last year was 258,239, of these, classed by *nativity* the *foreign* born were 71,630, and the native 186,609. I continue Dr. Snow's figures: the report of births for 1875 gives 6,508, divided as follows:—American, 2,727; foreign, 2,906; mixed 875. The birth-rate for 20 years, says Dr. Allan, has steadily decreased among the Americans, but increased with the foreign, so that in 1875 the foreign had 68 per cent of the births in the state. Dr. Snow adds:—The native American population of Rhode Island, by parentage, has increased 12.89 per cent in ten years, while the foreign population, by parentage, has increased 80.11 per cent in the same time. In 10 years at the same rate the native population of Rhode Island would be 152,087 and the foreign 222,466.

In two years (1874-5) 8,221 married women in Providence, born in the United States, and of on age to bear children, had 2,532 children; while 5,919 married women of the same ages, born in foreign countries, had 2,912 children in the same time; that is, says Dr. Nathan Allan, the foreign married women, 2,302 less in number than the American married women, had 380 children more. If the American married women had had, in the years 1874-5, the same percentage of children as the foreign born women, there would have been 4,044 children of American parentage, instead of 2,532, a gain of 1,512 children. If the comparison is made between the American and Irish alone, by parentage, the former class would have had 4,249 instead of 2,532, the actual number, which would show a gain of 67 per cent in two years. I have selected Rhode Island because the system of Registration is singularly correct; and I have taken the *ipissima verba* of the reports. The statistics of many other states are equally appalling. Those of Massachusetts especially so.

Once born, the New England child has a better chance of living than has the child of any other country or state; but Storer and other American writers have pointed out the ante-natal dangers to which the fœtus is exposed. And we are left no room to conjecture one at least of the causes.

Dr. Gould, of Boston, speaking of the births registered in Massachusetts 1859 to 1863, says: We have to record a continued deficiency in the number of births to be expected from the known population. 1865 was a year of war, and the diminished birth rate may be satisfactorily explained—the birth rate was only 4,097 in excess of death rate. But even then it was noticed by Dr. Geo. Derby that the births had diminished in all but three counties, while the deaths had diminished in every county except two. The population at that time being 1,267,059, there was one living birth to every 41.89 persons, and even then it was observed "that the births are most numerous in the counties containing crowded towns and a large foreign population." Dr. Derby, as if in anticipation, adds: It should not be inferred that the ratio of excess of births among the foreigners . . . is likely to lead finally to an extinction of the American element. But the most striking statement is that of Oliver Warner, Secretary of the Commonwealth: The native population of Massachusetts in 1860 was 970,752, the foreign population in the same year was 260,114. In that year the natives produced 16,672, the foreign 16,138. Dr. Derby in commenting says: The superior fecundity of the Celtic race . . . over the Anglo-American race is, we think, abundantly proved.

In 1865 the native population was 1,000,761, the foreign 266,270. They produced in the following year, the former 16,555 children, the latter 17,630—thus showing a productiveness of the latter over the former four times as great.

In 1867 the birth rate was 27.6 per thousand. Compared with the preceding year, the American births had diminished by 318, the foreign had increased by 922.

In 1868 the birth rate was 28.6 per thousand, an increase over former years, and it was then observed that the strictly American births had diminished 2.21 per cent.; the strictly foreign had increased .84 of one per cent.

In 1869 the birth rate was 25.5 per thousand. It had decreased by 52, while the marriages had increased by 970. It has now arrived that the excess of birth rate over death rate is but two-thirds of one per cent!

It is again observed that the American births had diminished during the preceding year, while the foreign had increased. The foreign births now exceed the native by 2,129, notwithstanding the relative smallness of the population.

In 1870, Dr. George Derby, Secretary of the State Board of Health, and Professor of Hygiene in Harvard University, reports the birth rate for Massachusetts as 26.2 per thousand, and adds: "The proportion of foreign births has remained quite constant since 1864; the purely American births have steadily diminished their ratio, and the births from mixed parentage have as steadily advanced." He continues: "Surely, and not very slowly, a mixed stock of Irish, Germans and Canadians is taking the place of the purely English stock which has possessed Massachusetts for more than two centuries. Here are facts for the statesman, the educator, and the moralist." In 1871, the same high authority states: "The superior fecundity of the foreign element among us is a fact fully recognized, and one which is confirmed in a most suggestive way from year to year by the registration returns. This year there was an increase of American births by 234; of foreign by 781.

In 1872, the births had increased by 3,444, but the deaths by 7,076, and the excess of birth rate over death rate was but .563 of one per cent. Again is noticed a progressive diminution in the purely native births, and a corresponding increase in those from a mixed parentage. The excess of birth is now entirely with the foreign element. In one year the native births have increased by 1,126, the foreign by 1,992.

The report for 1873-74 I have not at hand, but that for 1875, just published, (1877), is more than confirmatory, and with it I close.

Dr. Derby has passed away, and Dr. Draper prepares, under direction of the Secretary of the Commonwealth, that portion of the thirty-fourth Annual Registration Report from which I glean that the birth rate is 28.63 for every thousand of the population. Still a falling off—28.3 having been the average for the pre-

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ceding three years, and 27.4 the average annual rate during the twenty-five years, 1851 to 1875, a period which comprised the Southern war, when the birth rate was low from other causes than those I have alluded to. "The fact remains," says Dr. Draper, "that our birth rate in Massachusetts is lower than we would like."

The birth rate among the foreign born in 1875 was 55.51 per 1,000, while the birth rate among the native born was 16.46 per 1,000 in the same year.

It may be consoling to say that the question of survival is of great moment. And here the advantage, as I have said, is entirely with the native American element.

In looking at these figures, is there not reason to fear the fulfilment of Dr. Knox's prediction, that were the North American continent not fed by a constant influx of European blood, it would again revert to the Red man as its sole possessor. But no! other causes than climatal are at work, for the sun shines on the wil-lingly prolific, and the wilfully barren, alike; both are heated by the same summers and chilled by the same winters.

What I may have to say on this subject must not be considered as applied to any class of persons, but to individuals, here and there, in a class. A very small percentage of officious meddling females would disturb the birth rate of a large community. (At the moment of writing I can recall to mind the recent case of a well-dressed person, with somewhat of cultivation and refinement, who came from the adjoining Union, with shattered health and with heart bowed down, who admitted to me, unreservedly, having procured abortion, in her own person, fourteen times! She had so well learned the art from the fiend who had aided her at her first gestation that she required no assistance in the disposal of the subsequent thirteen.)

When persons have learned to regard man, in embryo, as a mere aggregation or union of fortuitous atoms, a plastic germ, a kind of colloid or protoplasm, which the chemical and mechanical laws of attraction and repulsion, selection and rejection, change and wave-like motion, may ultimately develop into a thinking being, but little heed will be given to the integrity of that immature creature suspended in the female womb. Broadcast over this land are sold pamphlets, the titles of which are alone attractive, instructing the female in measures for preventing conception, or for favouring abortion at an early period; and all in accordance with the views of certain classes of materialists and pseudo-philosophers. That the lesson is too well learned is evident from the experience of every physician who has written deprecatingly on the subject.

If the organization that now belongs to us had been progres-sively developed, the crime of fœticide would not be of that heinous

character which it would be, were that organization transmitted to us, without mutation of any kind, from our first parents. If man derives his existence by a process of evolution from a simple cell way up through the tribes of zoophytes, lizards and monkeys, *cui malo*, then, now and again, to hook an embryotic mass from any part of that long living chain? The Bathybius or beetle; the cod fish or chicken; the mollusk or monkey is but a link, and man is no more; and it is of small moment which portion of that link receives the attention of the prudentialist.*

Such are the views adduced by those who consider that there is a period, anterior to which man is a mere protoplasm, having no rights superior to those possessed by it. And this revolting idea, which, when entertained, disturbs every system of moral and religious belief, is clutched at by those who might hesitate to interfere with that highest, noblest work in embryo, were man created perfect by his Creator, but who, in the theory of evolution, have an excuse for what is claimed to be, not a wrong or an evil *per se*, but, at most, an unintentional detriment to the State.

If what Herbert Spencer says be true, that of all antagonisms of belief, the oldest, the widest, the most profound and the most important is that between religion and science, he is at fault here. There is none, there can be no antagonism between physiological and pathological science and true religion in the subject I am now considering. What is the moral and ethical aspect of the question? What is its social bearing? What are its bearings towards religion,—not that religion of a particular system of faith, but that of acknowledgment to God and our obedience to Him and to His laws? What is its legal aspect?

MORALS.

In ancient Greece, where public opinion seemed to accord a licence to one sex without showing any corresponding indulgence to the other, where, as Zenophon says, woman was like the queen bee, dwelling continually at home and superintending the work of the household, marriage was regarded in a civic light, as a means of producing citizens. At that time the beauty of form of the offspring was the strongest desire of the wife. The intense æsthetic enthusiasm of the period led the Greek wife to pray, before all

* I do not use the term by which the prowler for nascent human prey, who would limit and control man's entity, is familiarly known, as it is not yet found in our dictionaries, and I shall coin no word for the purpose.

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other prayers, as Locky says, for the number and beauty of her children. While in the ancient Roman family the authority of its head was absolute, marriage, and all that resulted therefrom, were protected by law and severe public opinion. For upwards of five hundred years, according to Valerius Maximus, the marriage tie was regarded as indissoluble, and according to Cornelius Nepos, the mother of the family was placed at the head of the table, and was even more honoured in her *maternal* character than in that of wife. The Roman matron was a name of honour, and Modestus interprets truly the feelings of the Roman people in defining the union of the sexes in marriage as a life-long fellowship of all divine and human rights; rights of the husband to generate and transmit; rights of the wife to conceive and bring forth; and rights of the fruit to be sheltered from ante-natal danger or injury.

At a later period when, after the Punic wars, Eastern luxury and Eastern voluptuousness overspread the Roman territory, there was a rebound into vice again; but while slaves took the place of wives, and undisguised, unblushing obscenity so flaunted at mid-day as to call for a law to prevent nameless crimes, even then the pregnant woman, whether wife or slave, was treated tenderly, and with the greatest consideration, for having consulted the perpetual endurance of the race, while contributing to a brief enjoyment.

When, later, female virtue suffered from the great wave of corruption that overflowed the land of the Cæsars, leaving but here and there examples of simplicity, gracefulness and chaste heroism, yet never, even in its worst times, was a nameless crime, now so common, even known to the people of that period.

At no time either during that profligate epoch, could be found anything so unblushingly wicked as the literature which finds its way so near to, and into, our Canadian homes, and which causes some alarm lest curiosity might prompt, and virtue might suffer from, a perusal.

I have been speaking of Pagan times: what shall I say of the early Christian, when a life of asceticism was considered the most perfect, and when marriage was tolerated "because it produced offspring," and was ordained by God for that purpose.

I had the curiosity to consult the *Senchus Mor*, comprising the ancient Laws of Ireland, to see what rules, if any, regulated the relation of the sexes, among the people of that prolific land.

But while every conceivable form of crime, — many of them now unknown, — received attention; while all the relations of men to one another and to animals, are copiously treated; while for every conceivable forbidden act are provided compensation, exemption, fines, forfeiture, honour price, restitution; for man in every rank; for woman in every state; from the King on his throne to the cat mousing in the garret, no mention is made, no punishment is provided for that crime spoken of in Genesis xxxviii, 9th and 10th. It seems to have been unknown, and *I may add, is still unknown among that people.* But lest the designs of Providence should be thwarted through prudential reasons, such as now obtain in certain states of society, neglecting marital duty is dealt with as a crime, and classed for the purpose of punishment with mutilating the person, stripping the slave, &c.

The woman with child was treated then as now with the greatest tenderness. No neighbouring woman, with bodkin; no village blacksmith was there to rid her of her burden; no demon defiling the name of Doctor to step in, and, with shielded stiletto to unhinge the work of nature. The word of a woman in childbirth was taken before all other evidence; and if unintentional violence had been used; or disgraceful violence as it was termed ("in turthach is tar") which brought on premature labour, and not in natural course, injuring her person, or killing her child, her oath or statement when in labour, or the oath of a witness, before whom the woman in labour made the statement, was taken, and punishment followed, for the *Senchus Mor*, as dispensed by the Brehons, would not allow that a woman in labour could speak anything but the truth.

The social consequences of this evil are beyond measurement or conjecture. Adopting the views of Malthus when the converse obtains, when the law or principle by which population increases is violated, the evil must not be viewed as progressing arithmetically, but geometrically. In Canada the French population has doubled itself since its foundation every twenty years. What factors were the three thousand who landed here 210 years ago, in the 1,350,000 Canadians of French origin who now people both sides of the St. Lawrence and its many tributaries, the Ottawa, St. Maurice, and Richelieu, and extend into the North West, and Eastern Townships, besides, sending half a million to the adjoining

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Union! What numerous existences were compressed and included in those few lives of our early settlers.*

The question in its *religious* aspect is easily understood. The most welcome promise made by God was that mentioned in Deut. viii. 14: "There shall not be male or female barren among you." Property, titles, honours could not bring so much delight to a people who thought barrenness, in wedlock, a reproach. All Christian nations are instructed to believe, that matrimony has for its principal end the propagation of mankind; although it has other accessory ends, such as the comfort afforded by the society of man and woman, &c. In the exercise of the rights of marriage nothing can be done against its final end. Hence the condemnation of the crime (Genesis xxxviii. 9) in a mere natural point of view—God alone being the giver of life, the married parties are but His instruments in the bestowing of life. They have no more control over the beginning and continuation of life in the mother's womb than they have over the life of the child born. The fœtus in utero has the same right to the enjoyment of life, as the child after it is born. At the very moment of conception, there is, at least, material or physical life, and more probably *animated* life also, as many are of opinion that the *anima*, or soul, is united to the body at the very moment of conception. Even were that union to take place later, the fœtus enjoys already physical life of its own, and is intended by the law of nature to enjoy animated life: nay it has a right to it, of which right none, save the Master of life Himself, can deprive it. Hence, whether the union of the soul and body be consummated in the act of conception, or later, there is a violent and unlawful snatching of human life, if the fœtus be destroyed.

An objection may be raised: when the fœtus constitutes danger of death for the mother—a plea put forth by the strong and the

*It was always the aim and effort of French Canada to encourage early marriages, and to develop native population. In the middle of the 17th century, young girls were selected in France for their piety and virtue, and sent to Canada, where they were soon sought in marriage. A dower of twenty livres was given to each one, and families of ten children, resulting from the union, were presented with 1,200 francs, and 1,600 francs to families of twelve. In 1660 there were 2,500 persons in the Colony; yet in eleven years, 700 children were born. Even now, taking the whole Province of Quebec, we find an average of a fraction over seven persons under each roof, or more than 6·23 persons in every family. Among the births the preponderance of those of the male sex is remarkable, a percentage of 51·13 to 48·87 female. As the deaths occur among male and female children alike, the preponderance of the former is steadily increasing, and indicates in a marked manner a difference with what obtains in Europe where the male population is as 49·61 males to 50·39 females. The birth-rate in the city of Montreal, among the French Canadian population is now 64 per 1000, the largest birth rate in any country in the world.

weak alike—can it not be considered as an invader vitæ, an offensive enemy, and cannot the mother's life be protected against that enemy, at the risk of destroying it? That danger arises from nature itself; and the mother, by assuming all the risks of her state, has submitted to it, and must abide by it. Besides, if the fœtus be an invader, it is an innocent one, and can no more be punished than an insane man who would kill a fellow man: no more than an innocent man could be put to death to rescue another from certain death. If it is alleged that the mother has a right to preserve her life, the same may be said of the fœtus; and if the mother had a right to deprive the fœtus of life, the fœtus would have the same right to deprive the mother of hers. From this we derive the principle:

1. It is never lawful to procure abortion *directly*, even though the fœtus be supposed to be inanimate, under whatever plea of averting death. It were homicide; at least anticipated homicide.

The great principle underlying this question is, in a word: "Thou shalt not kill." God alone is the Master of life, and He alone can take it away. This is the universal Christian code. Christian, did I say? Nothing can be added to the Hebrew teaching in this regard.

The sin of preventing conception denounced in the Hebrew Scriptures, e. g., as in the case of Onan, as "evil in the sight of the Lord," and the kindred crime of fœticide is held up by the teachers of Judaism, the Talmudical and all Rabbinical writers as a sin which God can never pardon,—omnia peccata condona, Deus excepta—הוציא שכבת זרע לבטלה "*hotsi shichbat zerang leba tela*," i. e., who brings forth semen improperly or causelessly. "He who is guilty of the unnatural and detestable vice inherits Gehinnam," teaches the Talmud, in various places,—"*he is worse than a murderer.*" In the Gemara or completion of the Talmud we are told that the disciples of a celebrated Rabbi asked him: how is it possible that one committing this sin should be worse, morally, than one who takes the life of a developed man who may be wise and good and useful to the State? The reply was: "in the latter instance he takes the life of a stranger, but in the former he unnaturally murders his own children." Again, in "*Sepher Hammaaloth*" it is taught, that he who does not duly perform the marital act is "a spiller of blood." To destroy the semen, or to procure abortion, is declared to be running counter to the will and intentions of the Supreme Creator who has already

an invisor vitæ, an offender to be protected against that danger arises from neglecting all the risks of her state. Besides, if the fœtus be can no more be punished fellow man: no more than to rescue another from certain death has a right to preserve his; and if the mother had fœtus would have the same. From this we derive the

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formed elsewhere the “zevug” or marriage match for the fœtus. The Talmudic code is crowded with the most minute instructions for the development of modesty and chastity. Thus, in the Mishna Treatise, Aboth, we read: “he who has had an *accidental* emission of semen is not to perform his ordinary devotions, much less the minister, or one who is to pray for the many.” The constitutions concerning marriage, which fill a volume, give the most minute directions with regard to the “robeh kerî,” (qui vidit semen) in other words, precautions to prevent the use of the same for any other purpose except that of raising virtuous children in Israel. The act is to be performed with absence of all levity, and rather with prayerful aspiration, that the issue may be for a “kiddush hashem,” i. e., to promote the sanctification of God’s name, in darkness and with all modesty. Early marriages are most strictly enjoined as a consequence of all this. “He who does not marry and raise children causes the divine presence (Shechinah) to depart from Israel,” see Yoreh Deah, p. 1. Again: “he who has no wife is not to be called a man; but when he marries and has children, his sins will be forgiven him.” A man who knowingly marries a barren woman is denounced as a fornicator—Yoreh Deah.

The result of such teaching is evident among the Jewish people. They are singularly free from the detestable crime to which I am alluding, and from that other, anterior to it, for which I can find no name, but which is so repugnant to the designs of the Creator.

WHAT ARE ITS LEGAL ASPECTS.

According to law, causing or procuring abortion is a felony—a “*crimen animi felleo perpetratum*”—with a bitter or gallish inclination—a crime which at common law occasioned the forfeiture of lands and goods, and is classed with suicide and manslaughter. It is not, indeed, murder in the eyes of the law, for in order to make the killing, murder, says Stephens, it is requisite that the person killed be a reasonable creature, in being, and under the King’s peace at the time of the killing. To kill a child in its mother’s womb, therefore, falls under a different description of crime. But it approaches more nearly to murder, and murder most cowardly, than any other crime; for it cannot be pleaded that it is done without malice aforethought. The malice prepense, *militia præcogitata*, does not require to be towards the unknown,

unseen fœtus, and is, therefore, not so much malevolence to the deceased infant in particular, as any evil design in general—the dictates of a wicked, depraved, and malignant heart, as Foster expressed it,—une disposition à faire une male chose—which may be either expressed or implied in law. It may be taken for a general rule that an act of this nature is malicious, and *should* amount to murder, unless where *justified* by the command or permission of the law, or *excused* on account of accident or of self-preservation, as in cases where the accoucheur risks the life of the child to save that of the mother. But without these circumstances of justification, excuse, or alleviation, the earnest and oft-times tearful plea “I don’t want to be bothered with any more children” would not be sufficient in any court of justice, still less in the forum of one’s conscience, where a faculty may still exist of judging of conduct with reference to some standard of right and wrong. There was an old Roman law by which the slayer of her own child was punished in a much severer manner than any other kind of homicide. After being scourged, the delinquent was sewed up in a leathern sack, with a live dog, a cock, a viper and an ape, and so cast into the sea. Solon the wise, in his laws, made none against this crime, apprehending it impossible, as Cicero says, that any one should be guilty of so unnatural a barbarity.

I have been at some trouble to search out the law on this question, as it has been more than once urged that the death of the mother alone jeopardises the life or liberty of the fiend who accommodatingly assists, or the woman who wantonly permits, or procures, or in any way wilfully occasions, a violent interference with the law of nature; and I find that as society *advanced* (?) the law was modified. By 43 Geo. III., c. 58, and 9 Geo. IV., c. 31, s. 13, it was provided that to administer a destructive thing to procure the miscarriage of a woman *quick* with child should be a *capital* felony; and if she should not be proved to have been *quick* with child, a felony punishable with transportation. But the law is now governed by 7 Will. IV. and 1 Vict., c. 85, s. 6, which provides that whosoever, with intent to procure the miscarriage of any woman, shall unlawfully administer to her, or cause to be taken by her, any poison or other noxious thing, or shall unlawfully use any instrument or other means whatsoever, with the like intent, shall be guilty of felony and liable to transportation for life, or not less than fifteen years, or to be imprisoned for any term not more than three years.”

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What says *science*? Apart altogether from those numerous ailments and diseases which follow in the train of such violations of the laws of God and of nature, and which a volume would be insufficient to delineate and 'pourtray, I shall merely observe that there is a peculiar condition of the os uteri brought about which is often the cause of subsequent miscarriages. The neck of the uterus, as Depaul observes, is a sort of sphincter muscle; and in many women this is in a lax condition, predisposing readily to abortion. With it there is indeed "a special irritability of the uterus, exciting it to relieve itself of its contents." How frequently do we not notice this condition in meddlesome females who, in the early months of married life, abhorring maternity, prevent it! yet who, at a later period, would sacrifice every thing short of life itself to regain the health they had wantonly sacrificed, and some at least of the lives they had so mercilessly brought to nought.

The indurated or hyperplastic condition induced by this wicked practice, indisposes the uterus to expand and yield before the growth of the fœtus at a subsequent gestation. The uterus, on account of that induced congestion or hyperplasia, is, moreover, prone to assume an abnormal position, and to add thereby another element of discomfort to the mother, and of danger to the safe progress of future gestation. When, as it often happens, future gestations are denied, the sufferings are not less severe. Who, amongst us, cannot recall the haggard, anxious expression, the hollow cheek, the sunken eye, the pallid, sickly countenance, the uncertain gait, the pain in forehead, side, back and limbs, and that indescribable sensation of fullness, yet of emptiness, that feeling of dragging, or of gnawing in the hypogastrium, which attends the wakeful moments, and disturbs and hinders rest, and which is as

The pang where more than madness lies,
The worm that will not sleep, and never dies.
Thought of the gloomy day and ghastly night
That dreads the darkness, and yet loathes the light;
That winds around, and tears the quivering heart!
Ah, wherefore not consume it, and depart!

But to come back again from Byronianism to plain prose, can I exaggerate the misery and distress which follow in the wake of the unhappy misguided deflowerer of her own womanhood, who so completely divorces herself from all freedom from sickness or suffering for the future.

I can but faintly allude to that other sinful evil; that partial and incomplete act, equally, if not more mischievous, which the law does not contemplate; which the moral law alone can touch; and which God alone can see; yet which, to mention, reddens the cheek with confusion. To reduce to nothing, when immature, and to be no longer, is, without doubt, say some, a great gain; but to have never been, save in the fecundating principle which found no matrix to foster and maintain its life, is better! Oh-Shame, where is thy blush! If there be such a power as Conscience, where is its office? Yet women, otherwise delicately, minded, chaste and virtuous; and husbands, otherwise considerate, and worthy of respect and honour, combine to thwart the designs of marriage; to engender a whole train of evils in one at least or in both; to violate the laws of God and of nature; and to conspire against the State.

This vital problem is obtaining solution too near our own doors for us to remain indifferent spectators. So far the pernicious teaching has done but little injury here; but, gentlemen, who is there amongst us to-day who will not be prepared to admit it has done some? Who amongst us has not been appealed to by married women in fashionable society to thwart the designs of Providence in their regard? And who amongst us does not know the earnestness of that appeal, where delicate health, narrow means, the claims of society, the displeasure of a husband, are urged most tearfully, in support of an undesired maternity, by those whom we would be disposed to befriend? What young man amongst us who has not been obliged to reject a proffered bribe where his impecuniosity seemed to give hope to the would be feticide? What practitioner, who has not found his advice "not to kill" spurned by one who looked to him for help in riding her of the fruit she was bearing? Some years ago I was present at an interesting meeting of Physicians at Malone, N. Y., and the aged President dwelt, among other things, on this topic. He told us of a married lady, one of his best patients, healthy and affluent, who wished to be relieved, at an early period of gestation, of the legitimate fruit she was bearing. He expostulated, coaxed, and at length, threatened. She left his office, indignant at his want of complacence; and although he had attended her and her family for years previously, she never afterward went near him. But to continue his own story: "I had my own satisfaction, for of a fine afternoon, a young lady of eighteen summers,

full of life, and health, and beauty, might be seen passing my window, little dreaming, and I would not have her know, how much she was indebted to the humble old man in his office near by for the continuance of the life she now so much enjoyed."

Gentlemen of the Canada Medical Association: Why do I enter into this matter at all while the beautiful and interesting fields of scientific discovery are so inviting? Believe me, I have no relish for it, and more than once have I turned with loathing from the task. But, let me ask, is there no necessity? Do you not perceive in spoils here and there in our Canada, and chiefly along the border, a knowledge of the physiology of conception, and alas! a knowledge of the means of its prevention, which would be better unlearned? It could not be that crimes which a Storer denounced in Massachusetts; a Deforrest or a Thomas in New York; or an Allen in Rhode Island, could have continued to be confined to the adjoining Union. Like the Colorado bug it would cross the border, and produce its work of mischief here. And it has been suggested to me that a few plain words proceeding from this chair—having a weight, a character and a quality which might be attached to the utterances of the occupant, honoured, for the moment, as the mouthpiece of this important Association—would not be misplaced or ill-timed.